horti CULTURE

for the home gardener

MULCHING

Mulching is the use of a suitable material as a cover for bare or exposed soil in the garden or landscape. The advantages of using mulches in the garden are many. In summer, mulches provide an insulation layer that reduces the loss of moisture by evaporation and protects the soil (and plant roots) from the hot, baking rays of the sun. In winter, this same insulation layer protects the plant by keeping the soil warmer and more resistant to freezing. Other benefits are not having to cultivate the soil, fewer weeds to remove, and water conservation.

Additional benefits are derived when organic materials are used as mulch, for they decompose to humus and ultimately benefit the soil by improving the structure, texture, aeration, retention of nutrients and water-holding capacity of the soil. When large amounts of organic materials are added to the soil, the bacteria decomposing the organic matter temporarily compete with the plants for available nitrogen in the soil. It is therefore important to add nitrogen in areas where organic mulches are used.

PREPARATION - Before applying mulches, the ground around existing shrubbery should be clean and weed free. Keep mulches away from the plant stems as the constant moisture can cause disease.

In a new garden, the soil is prepared in the usual manner. Mulching material can be added after the seedlings are up and the plants are several inches tall. With extremely fine material such as sawdust or peat moss, a thin layer can be applied over the seeded area but most of the mulch should be applied between the seed rows.

APPLICATION - The depth of the mulch depends on the texture of the material; one or two inches for fine materials such as sawdust and up to six inches for the coarser organic materials. A thick layer of fine materials tends to pack together and watering may become difficult. With irrigation, weathering, and decomposition of the mulch layer, the benefits of mulching will continue only by constantly adding additional layers of mulch.

OTHER USES - Often mulches are used primarily for ornamental value in the home landscape. Redwood chips sold as soil amendments or conditioners, fir bark chips, and colored rocks of various sizes are commonly used and are very attractive in the landscape where appearance is an important factor.

INORGANIC MULCHES - A recent innovation in mulching is the use of plastic sheeting to raise the soil temperatures in late winter and spring for better plant growth during the slower growing season. Clear plastic warms the soil more than black plastic, but weeds can germinate and grow underneath it. Plastics have a disadvantage in that they don't decompose like organic mulches and return humus to the soil, but generally they will last longer than organic mulches.

A watering method should be considered before a plastic mulch is installed over a large area. Polyethylene film is waterproof and plants must either be hand-watered through the opening in the plastic where plants are growing or a watering system should be installed beneath the plastic film. Sometimes

(OVER)

gardeners using furrow irrigation will cut the plastic into strips which cover the tops of the furrows where the plants are growing but not the bottom where the water can soak into the ground.

Wind can blow away many of the lighter mulches and can rip and tear plastic or even blow it away if it isn't anchored firmly to the ground with wire pins or rocks. If wind is a problem in your area, you should only consider using the heavier or bulky types of mulches.

ORGANIC MULCHES - A variety of organic materials are commonly used for mulching.

Material	Source	Comments
Bean straw	Nurseries & garden centers	Rather coarse but very long lasting.
Compost	Home compost pile	Excellent mulch.
Fir bark	Nurseries & garden centers	Very coarse and long lasting.
Grass clippings	Home lawns	Can cause heat build up if not spread out and dried before use.
Leaf mold	Nurseries & garden centers	Excellent compost but can be expensive to buy in quantity.
Manure	Dairies, stables	Provides some nutrients but can also burn plants and cause salt damage.
Mushroom compost	Nurseries, garden centers, & commercial mushroom growers	Good mulch when available.
Pebble bark	Nurseries & garden centers	Coarse but long lasting.
Pine needles	Wherever conifers grow	Good mulch.
Peat moss	Nurseries & garden centers	Fine texture but when it dries out is almost impossible to wet or allow water to penetrate.
Sawdust	Saw mills or lumber yards	Good general mulch but can cause nitrogen deficiency if nitrogen not used along with it.
Shredded leaves and small twigs	Utility and city maintenance companies, trimmings from pruning home shrubs & trees	Very coarse, not likely to cause nitrogen deficiency. Home trimmings need to be shredded considerably before use.
Stable bedding materials	Stables & farms	Good mulch especially when sawdust is mixed in with it.
Walk on bark	Nurseries & garden centers	Coarse but long lasting.
Wood chips	Saw mills or lumber yards	Coarser than sawdust, not as likely to cause nitrogen deficiency.

Mulching, when practiced by the homeowner, benefits everyone by conserving and using natural resources that we often waste.

Additional information can be obtained at: Los Angeles State & County Arboretum - 681-8411, Descanso Gardens - 790-5571, South Coast Botanic Garden - 772-5813.